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EXAMINER
PHILPOTT, JUSTIN M

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 December 2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-53* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *46-53* is/are allowed.

6) ☒ Claim(s) *1-45* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some *   c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed December 23, 2004 have been fully considered but they are
not persuasive.

2.   First, applicant argues (page 11) that the amended claim 1 now recites novel routing
which is not taught by Miller because, as argued by applicant, "Miller does not use MTP3
routing". However, claim 1 does not recite MTP3 routing. According, in response to applicant's
argument that the references fail to show certain features of applicant's invention, it is noted that
the features upon which applicant relies (i.e., MTP3 routing) are not recited in the rejected claim.
Although the claims are interpreted in light of the specification, limitations from the specification
are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.
1993). Further, while recitation of MTP3 routing has been added to other claims, such as
dependent claim 3, applicant only argues that claim 3 should be allowed because of its
dependence upon claim 1. However, as discussed above, and further discussed in the following
action, claim 1 remains rejected in view of the cited prior art. Accordingly, applicant's
arguments are not persuasive.

3.   Second, applicant argues (page 12) that the amended claim 1 should be allowed because
applicant's specification describes particular protocol levels, shown with respect to applicant's
figures 6-14, which provides "an adaptation layer structure receiving, interpreting and
formulating messages back and forth with an adjacement MTP3 layer and an SCTP layer, so as
to perform signaling processing". However, such a teaching is absent in the amended claim 1.

Thus, as discussed above, in response to applicant's argument that the references fail to show

certain features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., "an adaptation layer structure receiving, interpreting and formulating messages back and

forth with an adjacement MTP3 layer and an SCTP layer, so as to perform signaling processing"

in accordance with applicant's specification and applicant's figures 6-14) are not recited in the

rejected claim(s). Although the claims are interpreted in light of the specification, limitations

from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993). Thus, applicant's argument is not persuasive.

4.   Third, applicant argues (page 12) that claims 2, 3, 8, 9 and 14 should be allowed because

of their dependence upon independent claim 1. However, as discussed above, and further

discussed in the following office action, claim 1 remains rejected in view of the cited prior art.

5.   Fourth, applicant argues (pages 12-13) that the amended claims 15, 30, 38 and 46, should

be allowed in view of the additional limitations applicant has added to the claims. However,

claims 15, 30 and 38 are rejected in view of cited art for reasons discussed in the following

action. Claim 46 is allowed for reasons discussed in the following office action.

6.   Fifth, applicant argues (page 12, first paragraph) that claims 23 and 26 should be allowed

since Miller and AAPA do not show or suggest applicant's invention. With such a response,

applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general

allegation that the claims define a patentable invention without specifically pointing out how the

language of the claims patentably distinguishes them from the references. Accordingly,

applicant's argument is not persuasive.

7.   Sixth, applicant argues (pages 13-14) that the remaining dependent claims should be allowed because of their dependance upon an independent claim. However, as discussed above, and further discussed in the following action, all independent claims remain rejected in view of cited prior art. Thus, applicant's argument is not persuasive.

Claim Objections

8.   Claim 38 is objected to because of the following informalities: "said signaling link" (last line) should be changed to "said signaling node". Appropriate correction is required.

9.   Claims 28-53 are objected to because the numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 28, presently introduced as a new claim, must be renumbered by applicant as claim 53, and each of pending claims 29-53 must be appropriately renumberd (along with their respective claim dependencies) as claims 28-52, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11.   Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,584,190 to Bressler.

Regarding claim 1, Bressler teaches a telecommunications network element having a stack of multiple levels of protocol structures, the stack comprising: a signaling protocol structure (e.g., e.g., SS7 protocol stack, see col. 6, line 20 – col. 9, line 30) including a selected level (e.g., one of MTP1-MTP3, see col. 6, lines 20-57) of a signaling protocol (e.g., SS7) operable to effectuate signaling communication over a signaling network; an IP-based transport protocol structure (e.g., see col. 4, line 57 – col. 6, line 19 regarding UDP or TCP packet transmission), including an Internet Protocol (IP)-based transport protocol (e.g., TCP) operable to transport the signaling communication across a packet-switched network (e.g., IP data network 14) using a plurality of IP-based messages (e.g., via IP links, see col. 4, line 57 – col. 5, line 45); and a peer-to-peer protocol adaptation (PPA) structure (e.g., within SSPs 20 and SCPs 24) operable to generate and transmit to the signaling protocol structure (e.g., SS7 protocol stack) and to the IP-based protocol structure (e.g., see col. 4, line 57 – col. 6, line 19 regarding UDP or TCP packet transmission) and to receive and process messages from the protocol structures (e.g., see col. 4, line 57 – col. 9, line 52 regarding messages), thereby performing signaling processing with the IP-based protocol structure and with the signaling protocol structure locally within the network element (e.g., see col. 1, line 65 – col. 6, line 19).

Regarding claim 2, Bressler teaches the signaling protocol comprises an access signaling

protocol (e.g., SS7, see col. 6, lines 20-37).

Regarding claim 3, Bressler teaches the signaling protocol comprises SS7 (e.g., SS7, see

col. 6, lines 20-37) and the selected level comprises Level 3 Message Transfer Part (MTP3) (e.g.,

see col. 6, lines 45-49; see also col. 12, lines 22-24).

Regarding claims 4 and 5, Bressler teaches the signaling protocol comprises a common

channel signaling protocol, and specifically comprises SS7 protocol (e.g., see SS7 in see col. 6,

lines 20-37) associated with switched circuit network.

Regarding claims 6 and 7, Bressler teaches the switched network comprises a wireline

and/or wireless telephony network (e.g., see col. 2, line 65 – col. 3, line 13).

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

13.   Claims 8, 9, 11, 14-19, 28, 30 and 38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bressler in view of applicant's admitted prior art.

Regarding claim 8, Bressler teahces the network discussed above regarding claim 5.

Further, while Bressler may not specifically disclose that the second structure transports the

signaling messages using SCTP, applicant admits that it is well known in the art to utilize SCTP

for SS7 messages for facilitating SS7-over-IP transport (e.g., see specification, page 5). As

discussed above, Bressler teaches SS7-over-IP transport. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport in the element of Bressler since applicant admits that it is well known in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport.

Regarding claim 9, Bressler teaches converting messages between SS7 and a second protocol (e.g., IP) as discussed above (e.g., see col. 1, line 65 – col. 6, line 19), wherein the messages include sequence numbers (e.g., see col. 6, lines 20-37; and col. 13, lines 19-37) which are implicitly converted through the message conversion means.

Regarding claim 11, as discussed above, Bressler teaches the message sequence numbers include backward sequence numbers (e.g., see col. 13, lines 19-37).

Regarding claim 14, Bressler teaches mapping means to maintain a map between an SS7 communication link and its corresponding second protocol association (e.g., see col. 8, lines 28-55). Further, as discussed above, while Bressler may not specifically disclose that the second structure transports the signaling messages using SCTP, applicant admits that it is well known in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport (e.g., see specification, page 5). As discussed above, Bressler teaches SS7-over-IP transport. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport in the element of Bressler since applicant admits that it is well known in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport.

Regarding claim 15, Bressler teaches a telecommunications network, comprising: a first network portion (e.g., e.g., SS7 protocol stack, see col. 6, line 20 – col. 9, line 30) operable to

transport signaling messages using Signaling System No. 7 (SS7) protocol; a second network portion (e.g., see col. 4, line 57 – col. 6, line 19 regarding UDP or TCP packet transmission) based on Internet Protocol (IP), the second network portion being operable to transport the signaling messages using a second protocol (e.g., TCP; see also IP links in FIG. 1); and a signaling gateway (e.g., SSPs 20 and SCPs 24) disposed between the first and second network portions, the signaling gateway including a peer-to-peer protocol adaptation (PPA) structure (e.g., within SSPs 20 and SCPs 24) operable to interwork between the SS7 protocol and second protocol messaging (e.g., see col. 4, line 57 – col. 9, line 52 regarding messages), wherein the PPA structure provides an interface between a Level 3 MTP (MPT3) layer of the SS7 protocol and the second protocol (e.g., see col. 6, lines 45-49; see also col. 12, lines 22-24 regarding interfacing with MTP3 layer), the interworking of the PPA structure including functionality to locally process functions associated with a Level 2 Message Transfer Part (MTP2) layer (e.g., see col. 6, lines 20-57; see also col. 1, line 65 – col. 6, line 19).

While Bressler may not specifically disclose that the second protocol is SCTP, applicant admits that it is well known in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport (e.g., see specification, page 5). As discussed above, Bressler teaches SS7-over-IP transport. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport in the element of Miller since applicant admits that it is well known in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport.

Regarding claim 16, Bressler teaches a signaling gateway (e.g., interfaces which interface to both an SS7 link and an IP link, see col. 4, lines 45-56) is coupled to an SEP (e.g., subscriber 12) in the first network portion.

Regarding claim 17, Bressler teaches the signaling gateway (e.g., interfaces which interface to both an SS7 link and an IP link, see col. 4, lines 45-56) is coupled to an STP (e.g., STP 22) disposed in the first network portion.

Regarding claim 18, Bressler teaches the signaling gateway (e.g., interfaces which interface to both an SS7 link and an IP link, see col. 4, lines 45-56) is coupled to an SSP (e.g., SSP 20) disposed in the first network portion.

Regarding claim 19, Miller teaches the signaling gateway (e.g., interfaces which interface to both an SS7 link and an IP link, see col. 4, lines 45-56) is coupled to an IPSP (e.g., implicitly at IP links of IP network 14) disposed in the second network portion.

Regarding claim 28, Bressler teaches a plurality of PPA structures as discussed above (e.g., within SSPs 20 and SCPs 24).

Regarding claim 30, Bressler teaches a method of transporting SS7 information over an IP-based network, comprising the steps of: establishing a virtual link (e.g., coupling IP link and SS7 link, see FIG. 1) across an IP connection between two nodes (e.g., see col. 3, lines 13-30 regarding network node communications), the virtual link being operable to propagate messages using a second protocol (e.g., that of IP link, such as TCP, see col. 4, line 57 – col. 5, line 45); verifying the virtual link's integrity by one of the two nodes (e.g., see col. 6, lines 20-37 regarding ensuring that two end points of a signaling link can reliably exchange messages); interworking, at each of the two nodes, between an MTP3 functionality (e.g., see col. 6, lines 20-

57 regarding MTP3 functionality) and the second protocol (e.g., that of IP link) by a PPA

structure provided thereat (e.g., within SSPs 20 and SCPs 24), the interworking by the PPA

including exchanging messages with the MTP3 functionality (e.g., via messaging from MTP3 to

MTP2, see col. 6, lines 20-57) and with the second protocol (e.g., that of IP link), including for

performing the verifying of the virtual link's integrity (e.g., see col. 6, lines 20-37 regarding

ensuring that two end points of a signaling link can reliably exchange messages), and the

interworking operating to convert SS7 signal bearer traffic into a stream of second protocol

messages (e.g., conversion of SS7 traffic to IP messaging, see col. 4, line 57 – col. 5, line 45);

and loading the virtual link with the stream of second protocol messages for propagation between

the two nodes over the virtual link (e.g., see col. 4, line 57 – col. 5, line 45; and also col. 5, line

46 – col. 9, line 30).

Further, as discussed above, while Bressler may not specifically disclose that the second

protocol is SCTP, applicant admits that it is well known in the art to utilize SCTP for SS7

messages for facilitating SS7-over-IP transport (e.g., see specification, page 5). As discussed

above, Bressler teaches SS7-over-IP transport. Thus, at the time of the invention it would have

been obvious to one of ordinary skill in the art to utilize SCTP for SS7 messages for facilitating

SS7-over-IP transport in the element of Miller since applicant admits that it is well known in the

art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport.

Regarding claim 38, Bressler teaches a method comprising the steps of: establishing a

virtual link (e.g., coupling IP link and SS7 link, see FIG. 1) across an IP connection associated

with a signaling node (e.g., see col. 3, lines 13-30 regarding network node communications), the

virtual link being operable to propagate messages using a second protocol (e.g., that of IP link,

such as TCP, see col. 4, line 57 – col. 5, line 45); verifying the virtual link's integrity by the

signaling node (e.g., see col. 6, lines 20-37 regarding ensuring that two end points of a signaling

link can reliably exchange messages); interworking, at the signaling node, between an MTP3

functionality (e.g., see col. 6, lines 20-57 regarding MTP3 functionality) and the second protocol

(e.g., that of IP link) by a PPA structure provided thereat (e.g., within SSPs 20 and SCPs 24), the

interworking by the PPA including exchanging messages with the MTP3 functionality (e.g., via

messaging from MTP3 to MTP2, see col. 6, lines 20-57) and with the second protocol (e.g., that

of IP link), including for performing the verifying of the virtual link's integrity (e.g., see col. 6,

lines 20-37 regarding ensuring that two end points of a signaling link can reliably exchange

messages), and the interworking operating to convert SS7 signal bearer traffic into a stream of

second protocol messages (e.g., conversion of SS7 traffic to IP messaging, see col. 4, line 57 –

col. 5, line 45); and loading the virtual link with the stream of second protocol messages for

propagation over the virtual link associated with the signaling node (e.g., see col. 4, line 57 – col.

5, line 45; and also col. 5, line 46 – col. 9, line 30).

Further, as discussed above, while Bressler may not specifically disclose that the second

protocol is SCTP, applicant admits that it is well known in the art to utilize SCTP for SS7

messages for facilitating SS7-over-IP transport (e.g., see specification, page 5). As discussed

above, Bressler teaches SS7-over-IP transport. Thus, at the time of the invention it would have

been obvious to one of ordinary skill in the art to utilize SCTP for SS7 messages for facilitating

SS7-over-IP transport in the element of Miller since applicant admits that it is well known in the

art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport.

14.   Claims 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bressler in view applicant's admitted prior art, further in view of prior art recited by U.S. Patent

No. 5,949,871 to Kabay et al.

Regarding claim 10, Bressler in view of applicant's admitted prior art teach the element

discussed above regarding claim 9, however, Bressler in view of applicant's admitted prior art

may not specifically disclose a specific configuration for message sequence numbers comprising

forward sequence numbers. Kabay, however, discloses that it is well known in the art of SS7

signaling that message sequence numbers include forward and backward sequence numbers (e.g.,

see col. 3, lines 8-18 regarding BSN and FSN). Such fields provide error correction functionality

(e.g., see col. 3, lines 16-18) known in the art. Also, as discussed above, Bressler utilizes

message sequencing (e.g., see col. 6, lines 20-37; and col. 13, lines 19-37). Thus, at the time of

the invention it would have been obvious to one of ordinary skill in the art to apply the prior art

SS7 signaling teachings in Kabay to the element of Bressler in view of applicant's prior art in

order to provide more specific message sequencing means for error correction.

Regarding claim 12, Kabay teaches it is well known in the art to generate User Data

messages (e.g., service/application data) based on Message Signal Units provided and operable

by the implemented protocols (e.g., see col. 3, lines 20-24). As discussed above, Kabay teaches

well known advantages of SS7 networks (e.g., see col. 1, line7 – col. 6, line 14), and therefore, it

would have been obvious to one of ordinary skill in the art to apply the SS7 network teachings

disclosed by Kabay to the element of Bressler in order to achieve the full known advantages of

SS7 networks.

Regarding claim 13, Kabay teaches generating Link Status messages (e.g., information relating to the status of the link) based on Link Status Units provided and operable by the implemented protocols (e.g., see col. 3, lines 25-31). As discussed above, Kabay teaches well known advantages of SS7 networks (e.g., see col. 1, line7 – col. 6, line 14), and therefore, it would have been obvious to one of ordinary skill in the art to apply the SS7 network teachings disclosed by Kabay to the element of Bressler in order to achieve the full known advantages of SS7 networks.

15.   Claims 31-33 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bressel in view of applicant's admitted prior art, further in view of U.S. Patent No. 6,154,445 to Farris et al.

Regarding claims 31 and 39, Bressel in view of applicant's admitted prior art teaches the methods of claims 30 and 38, however, may not specifically disclose a step of determining if a predetermined quality condition associated with a virtual link between two nodes is degraded by a select amount; and if so, suspending a stream of messages on the virtual link and establishing an alternative link between the two nodes, and propagating the signal bearer traffic over the alternative link. However, Bressel in view of AAPA may not specifically disclose suspending traffic and providing an alternate link.

Farris teaches a system for improved communications utilizing SS7 and IP networks (e.g., see abstract). Specifically, Farris teaches determining if a predetermined quality condition associated with a first link between two nodes is degraded by a select amount (e.g., see col. 10, lines 10-16 regarding threshold quality level); and if so, suspending a stream of messages on the

first link and establishing an alternative link between the two nodes, and propagating the signal

bearer traffic over the alternative link (e.g., see col. 10, lines 18-25). The teachings of Farris

provide improved communication with monitored quality for yielding maximum access with

minimum cost routing and reduced congestion (e.g., see col. 19, line 36 – col. 20, line 17). Thus,

at the time of the invention it would have been obvious to one of ordinary skill in the art to apply

the teachings of Farris to the method of Bressel in view of applicant's admitted prior art in order

to provide improved communication with monitored quality for yielding maximum access with

minimum cost routing and reduced congestion.

Regarding claims 32, 33, 40 and 41, Farris teaches the alternative link comprises an IP-

based link or SS7 link (e.g., see col. 9, lines 23-34 and abstract). As discussed above, the

teachings of Farris provide improved communication with monitored quality for yielding

maximum access with minimum cost routing and reduced congestion (e.g., see col. 19, line 36 –

col. 20, line 17). Thus, at the time of the invention it would have been obvious to one of

ordinary skill in the art to apply the teachings of Farris to the method of Bressel in view of

applicant's admitted prior art in order to provide improved communication with monitored

quality for yielding maximum access with minimum cost routing and reduced congestion.

16.   Claims 23-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,324,183 to Miller in view of applicant's admitted prior art (AAPA).

Regarding claim 23, Miller teaches a telecommunications network element comprising: a

first structure (e.g., SP1 in FIG. 16) operable to effectuate signaling communication over a

signaling network (e.g., SS7 network) using a signaling protocol (e.g., SS7 protocol); a second

structure (e.g., N1) operable to transport the signaling communication across a packet-switched

network (e.g., IP network) using an Internet Protocol-based transport protocol (e.g., IP), the IP-

based transport protocol including a plurality of IP-based messages (e.g., see col. 9, lines 1-32);

and a peer-to-peer protocol adaptation structure (e.g., 1500) associated with the first and second

structures, the PPA structure operating to convert the signaling communication between the

signaling protocol and the IP-based messages (e.g., see col. 12, lines 49-62 regarding

translation/conversion of SS7 to IP within STP; see also col. 15, lines 12-17), the PPA structure

(e.g., 1500) including functionality to facilitate the first structure (e.g., SP1) to locally process

the signaling protocol's signaling messages (e.g., SP1 receives/transmits SS7 messages, see col.

9, lines 1-32).

Further, regarding claims 23 and 26, Miller teaches an SS7 protocol is utilized for the

signaling protocol (e.g., see col. 9, lines 1-32), the PPA provides an MTP2 interface between an

MTP3 layer of the SS7 protocol and the second structure's protocol (e.g., see col. 11, lines 22-43

and col. 13, lines 20-35), and wherein the PPA includes functionality to locally process functions

with an MTP2 layer (e.g., SP1 receives/transmits SS7 messages, see col. 9, lines 1-32).

Additionally, Miller teaches a first and second IPSP (e.g., N1 and N2) having MPT3

functionality (e.g., see col. 11, lines 33-42 and col. 13, lines 30-35), and an IP-based virtual link

coupling the ISPSs (e.g., see col. 9, lines 8-12 and FIG. 16 regarding virtual link path designated

by 2220). While Miller may not specifically disclose that the second structure transports the

signaling messages using SCTP, applicant admits that it is well known in the art to utilize SCTP

for SS7 messages for facilitating SS7-over-IP transport (e.g., see specification, page 5). As

discussed above, Miller teaches SS7-over-IP transport. Thus, at the time of the invention it

would have been obvious to one of ordinary skill in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport in the element of Miller since applicant admits that it is well known in the art to utilize SCTP for SS7 messages for facilitating SS7-over-IP transport.

Regarding claims 24 and 25, Miller teaches IPSP comprises an IPSCP (e.g., see communication with SCP using IP in col. 6, lines 3-13) or IPSEP (e.g., IP signaling endpoint N1).

Regarding claim 27, Miller teaches the signaling gateway (e.g., comprising STP IP gateway) is coupled to a media gateway controller (e.g., Data Communications Module DCM 1820, see col. 10, lines 57-65) in a second network portion.

Regarding claim 29, Miller teaches a second IPSP (e.g., N2) comprises an IP STP (e.g., see communication with STP using IP in col. 6, lines 3-13).

17.   Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bressler in view of AAPA, further in view of Miller.

Regarding claims 20-22, Bressler in view of AAPA teach the network discussed above regarding claim 19, however, may not specifically disclose an IPSCP, IPSEP, or MGC. As discussed above regarding claim 23, Miller, like Bressler, also teaches SS7-over-IP transport. Further, Miller specifically teaches an IPSP comprises an IPSCP (e.g., see communication with SCP using IP in col. 6, lines 3-13) and IPSEP (e.g., IP signaling endpoint N1) and a signaling gateway (e.g., comprising STP IP gateway) is coupled to a media gateway controller (e.g., Data Communications Module DCM 1820, see col. 10, lines 57-65) in a second network portion. Additionally, the teachings of Miller provide improved operation with reduced link requirements

leading to more efficient operation and cost savings (e.g., see col. 6, lines 14-28). Thus, at the

time of the invention it would have been obvious to one of ordinary skill in the art to apply the

teachings of Miller to the network of Bressler in view of AAPA in order to provide improved

operation with reduced link requirements leading to more efficient operation and cost savings.

18.   Claims 34-37 and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bressler in view of AAPA in view of Farris, further in view of Miller.

Regarding claims 34-37 and 42-45, Bressler in view of AAPA in view of Farris teach the

network discussed above regarding claims 31 and 39, respectively, however, may not

specifically disclose an IPSCP, IPSEP, IPSTP or MGWC. As discussed above, Miller, like

Bressler, also teaches SS7-over-IP transport. Further, Miller specifically teaches an IPSP

comprises an IPSCP (e.g., see communication with SCP using IP in col. 6, lines 3-13) and an

IPSEP (e.g., IP signaling endpoint N1), and further teaches a node comprises an IPSTP (e.g., see

STP/IP 1520), and a node comprises a media gateway controller MGWC (e.g., Data

Communications Module DCM 1820, see col. 10, lines 57-65). Additionally, the teachings of

Miller provide improved operation with reduced link requirements leading to more efficient

operation and cost savings (e.g., see col. 6, lines 14-28). Thus, at the time of the invention it

would have been obvious to one of ordinary skill in the art to apply the teachings of Miller to the

network of Bressler in view of AAPA in view of Farris in order to provide improved operation

with reduced link requirements leading to more efficient operation and cost savings.

Allowable Subject Matter

19.   Claims 46-53 are allowed.

20.   The following is an examiner's statement of reasons for allowance:

claim 46 is allowed in view of the amendment and reasons argued by applicant in the

Remarks (pages 13-14) filed December 23, 2004; and claims 47-53 depend upon claim 46 and

are allowed for the same reasons as claim 46.

21.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

22.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

23.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The

examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin M Philpott

ALPUS H. HSU
PRIMARY EXAMINER